

V Volume Contents

JANUARY-FEBRUARY 1985/VOLUME 8/NUMBER 1

ORIGINAL ARTICLES

The Role of Self-Monitoring of Blood Glucose in the Routine Management of Children with Insulin-dependent Diabetes Mellitus—DENIS DANEMAN, M.B., B.Ch., LINDA SIMINERIO, R.N., M.S., DAVID TRANSUE, M.D., JEAN BETSCHART, R.N., M.N., ALLAN DRASH, M.D., AND DOROTHY BECKER, M.B., B.Ch.—1

A Clinical Algorithm to Determine the Etiology of Brittle Diabetes—DAVID S. SCHADE, M.D., R. PHILIP EATON, M.D., DENISE A. DRUMM, M.Sc., AND WILLIAM C. DUCKWORTH, M.D.—5

The Etiology of Incapacitating, Brittle Diabetes—DAVID S. SCHADE, M.D., DENISE A. DRUMM, M.Sc., WILLIAM C. DUCKWORTH, M.D., AND R. PHILIP EATON, M.D.—12

Continuous Intravenous Insulin Infusion in the Management of Brittle Diabetes: Etiologic and Therapeutic Implications—GARETH WILLIAMS, M.R.C.P., JOHN C. PICKUP, B.M., D.Phil., AND HARRY KEEN, M.D., F.R.C.P.—21

Rarity of a Marked "Dawn Phenomenon" in Diabetic Subjects Treated by Continuous Subcutaneous Insulin Infusion—JEREMY J. BENDING, M.R.C.P., JOHN C. PICKUP, B.M., D.Phil., ANDREA C. G. COLLINS, M.Sc., AND HARRY KEEN, M.D., F.R.C.P.—28

Continuous Peritoneal Insulin Infusion with Portable Pumps: Factors Affecting the Operating Life of the Chronic Catheter—J. L. SELAM, M.D., P. GIRAUD, M.D., J. MIROUZE, M.D., S. SAEIDI, M.D., B. HEDON, M.D., A. SLINGENYER, M.D., H. LAPINSKI, M.D., AND C. HUMEAU, M.D.—34

Pharmacokinetics and Bioavailability of Injected Glucagon: Differences Between Intramuscular, Subcutaneous, and Intravenous Administration—INGRID MÜHLHAUSER, M.D., JUTTA KOCH, M.D., AND MICHAEL BERGER, M.D.—39

Use of Health Services by Diabetic Persons. II. Hospital Admissions—RUSSELL S. SCOTT, M.D., Ph.D., LAURIE J. BROWN, M.A., AND PENELOPE CLIFFORD, B.S.—43

The Use of a County Hospital Emergency Room by Diabetic Patients—CATHERINE C. MURPHY, M.P.H., ESTHER H. FAULKENBERRY, R.N., B.S.N., JOHN D. RUMPEL, M.A., AND FRANCES C. WHEELER, Ph.D.—48

The Young Adult with Diabetes: Impact of the Disease on Marriage and Having Children—JANET E. AHLFIELD, R.D., NORMAN G. SOLER, M.D., Ph.D., AND SPENCER D. MARCUS, M.D.—52

Visual Function After Pan-Retinal Photocoagulation: A Survey—PHILLIP W. RUSSELL, Ph.D., ROBERT SEKULER, Ph.D., AND CARL FETKENHOUR, M.D.—57

Heart Rate Variability in Diabetes: Relationship to Age and Duration of the Disease—SHIRLEY MASAKA, M.D., ARYE LEV-RAN, M.D., Ph.D., L. ROBERT HILL, M.Sc., GITA VAKIL, B.Sc., AND EDWARD H. G. HON, M.D.—64

C-Peptide Responses to Glucose Load in Maturity-Onset Diabetes of the Young (MODY)—VISWANATHAN MOHAN, M.D., CHAMUKUTTAN SNEHALATHA, M.Sc., D.Phil., AMBADI RAMACHANDRAN, M.D., RAMASWAMY JAYASHREE, M.Sc., AND MOOPIL VISWANATHAN, M.D.—69

TECHNICAL SECTION

Clinical Experience with a New Device that Will Simplify Insulin Injections—ALLAN S. BERGER, M.D., NINA SAURBREY, M.D., CLAUS KÜHL, M.D., AND JOHN VILLUMSEN, M.Sc.—73

Assessment of a New Blood Glucose Strip: Comparison of Visidex, Visidex II, and Chemstrip bG with Glucose Analyzer Determination of Blood Glucose—MICHAEL E. CANFIELD, M.D., STEPHEN F. KEMP, M.D., Ph.D., AND CHARLES HOFF, Ph.D.—77

REVIEW

A Family Development Approach to Studying Factors in the Management and Control of Childhood Diabetes—J. R. NEWBROUGH, Ph.D., CELESTE G. SIMPKINS, A.A., AND HELEN MAURER, M.A.—83

EDITORIAL

Brittle Diabetes—ROBERT A. RIZZA, M.D., BRUCE R. ZIMMERMAN, M.D., AND F. JOHN SERVICE, M.D.—93

LETTERS AND COMMENTS

Syringe Reuse—BRUCE R. ZIMMERMAN, M.D., DAVID L. HORWITZ, M.D., Ph.D., ROBERT MATZ, M.D., DAVID WALTERMAN, M.D., MILDRED FRIEDMAN, B.S., M.S.Ed., AND ANTHONY M. PERRY, M.D.—97

Studying the Causes of Type I Diabetes—IAN GRALNEK, B.A., GERALD COTTON, M.D., CHRISTIAN HERTER, B.S., JAMES BROSEAU, M.D., BONNIE BATA, R.N., F.N.P., DONNELL ETZWILER, M.D., AND JOSE J. BARBOSA, M.D.—99

The "Dawn Phenomenon": How Do We Treat It?—RICHARD K. BERNSTEIN, M.D.—100

Granuloma Annulare Secondary to Self-Monitoring of Blood Glucose—LAURA RENFROW, R.N., M.A., PAUL J. BEISSWENGER, M.D., AND BARRY AUSTIN, M.D.—101

Improving the Accuracy of Blood Glucose Meters that Use Enzymatic Reagent Strips—RICHARD K. BERNSTEIN, M.D.—101

Patient Evaluation of Fingerstick Devices—M. TERESA VOLPONE McMAHON, Pharm.D., AND MARILYN A. BUSH, R.N., M.N.—102

Reimbursement Issues—RANDY SCHWARTZ, M.S.P.H.—103

BOOKS—104

MARCH-APRIL 1985/VOLUME 8/NUMBER 2

ORIGINAL ARTICLES

Diabetes, Parental Diabetes, and Obesity in Oklahoma Indians—ELISA T. LEE, Ph.D., PAUL S. ANDERSON, JR., Ph.D., JOHN BRYAN, Ph.D., CARMAN BAHR, M.D., THOMAS CONIGLIONE, M.D., AND MARIO CLEVES, M.S.—107

Age of Onset and Type of Diabetes—MARKKU LAAKSO, M.D., AND KALEVI PYÖRÄLÄ, M.D.—114

The Cardiovascular Risk: Profile of Adolescents with Insulin-dependent Diabetes Mellitus—KAREN J. CRUICKSHANKS, B.A., TREVOR J. ORCHARD, M.B.B.Ch., M.Med.Sci., AND DOROTHY J. BECKER, M.B.B.Ch., F.C.P. (Paed.)—118

The Prevalence of Symptomatic, Diabetic Neuropathy in an Insulin-treated Population—ANDREW J. M. BOULTON, M.R.C.P., GRAHAM KNIGHT, M.R.C.P., JOHN DRURY, M.R.C.Path., AND JOHN D. WARD, F.R.C.P.—125

Autonomic Neuropathy in Diabetes Mellitus: A Follow-up Study—GÖRAN SUNDKVIST, M.D., AND BO LILJA, M.D.—129

Incidence of Hypoglycemic Episodes in Diabetic Patients Under Continuous Subcutaneous Insulin Infusion and Intensified Conventional Insulin Treatment: Assessment by Means of Semiambulatory 24-hour Continuous Blood Glucose Monitoring—PABLO ARIAS, M.D., WOLFGANG KERNER, M.D., HORST ZIER, IGNACIO NAVASCUÉS, M.D., AND ERNST F. PFEIFFER, M.D.—134

Severe Hypoglycemia in Diabetic Patients: Frequency, Causes, Prevention—ANTON F. CASPARIE, M.D., AND LAMMY D. ELVING, M.D.—141

Mother-Daughter Interaction and Adherence to Diabetes Regimens—ELISA S. BOBROW, Ph.D., THEODORE W. ABRUSKIN, M.D., F.R.C.P., AND JEROME SILLER, Ph.D.—146

Social Learning Intervention to Promote Metabolic Control in Type I Diabetes Mellitus: Pilot Experiment Results—ROBERT M. KAPLAN, Ph.D., MICHELE W. CHADWICK, B.A., AND LESLIE E. SCHIMMEL, B.A.—152

Attitudes of Diabetic Men After Implantation of a Semi-Rigid Penile Prosthesis—HUGH R. PETERSON, M.D., JAMES D. BEST, M.D., RICHARD BERGER, M.D., ANDREW REENAN, M.S., DANIEL PORTE, JR., M.D., JEFFREY B. HALTER, M.D., AND MICHAEL A. PFEIFFER, M.D.—156

Effects of Antithyroid Drug Therapy on Blood Glucose, Serum Insulin, and Insulin Binding to Red Blood Cells in Hyperthyroid Patients of Different Ages—ICHIRO KOMIYA, M.D., Ph.D., TAKASHI YAMADA, M.D., Ph.D., AKIRA SATO, M.D., Ph.D., YOICHI KOIZUMI, M.D., Ph.D., AND TAKESHI AOKI, M.D., Ph.D.—161

BRIEF COMMUNICATION

Diabetic Microangiopathic Hemolytic Anemia: Beneficial Effect of an Antiplatelet Agent?—ALAIN G. DUPONT, M.D., PATRICIA VAN DER NIEPEN, M.D., JACQUES SENNESAEL, M.D., AND GUIDO SOMERS, Ph.D.—169

TECHNICAL SECTION

The Evaluation of a Pocket Computer as an Aid to Insulin Dose Determination by Patients—LAURENCE H. CHANOC, LOIS JOVANOVIC, M.D., AND CHARLES M. PETERSON, M.D.—172

CASE REPORT

Bullosis Diabeticorum: A Case with Lesions Restricted to the Hands—J. T. COLLET, M.D., AND J. TOONSTRA, M.D.—177

REVIEW

Group Therapy in the Treatment of Diabetes—ROBERT B. TATTERSALL, M.D., DAVID K. McCULLOCH, M.D., AND MARK AVELINE, M.D.—180

EDITORIAL

The Diabetic Driver—EUNICE M. LASCHÉ, M.D.—189

LETTERS AND COMMENTS

Fiber and Diabetes—J. I. MANN, D.M.—192

Fiber and Diabetes: A Reply—JUAN M. MUÑOZ, M.D.—193

Mathematical Model to Obtain Cholesterol, P/S Ratio, and Fiber Daily Intake—DOMINIQUE TATER, M.D., FRANCOISE LE GALL, R.D., AND JEAN-PIERRE BERCOVICI, M.D.—194

More on SMBG Techniques—NINA PELED, Ph.D.—195

Microcomputers in Diabetes Management and Education—MAURIZIO CARLINI, M.D., GIORGIO GRASSI, M.D., SILVIA GAMBA ANSALDI, M.D., THOMAS WINKLER, B.S., AND BRUNO BRUNI, M.D.—195

Increased Red Cell Volume in Impaired Glucose Tolerance: A Further Evidence of Hematologic Sequelae of Altered Glucose Metabolism—FRANCESCO CURCIO, M.D., PATRIZIA DELLO RUSSO, DARIO GIUGLIANO, M.D., AND ANTONIO CERIELLO, M.D.—196

Hypertension and Diabetes—T. MERIDEN, M.D., F.A.C.P.—196

Angioedematous Urticaria in a Diabetic Patient Successfully Treated with Nifedipine—RICHARD K. BERNSTEIN, M.D.—197

Rhabdomyolysis Associated with Hyperosmolar Nonketotic Coma—ERIC SCHLEPPHORST, M.D., AND MARVIN E. LEVIN, M.D.—198

Jaundice and Rash Associated with Chlorpropamide—ANNE M. BACIEWICZ, Pharm.D., RAYMOND DATILO, M.D., SANDRA E. WILLIS, Pharm.D., AND JANET L. KERSHAW, M.D.—200

A Generalized Allergic Reaction due to Zinc in Insulin Preparation—BRUNO BRUNI, M.D., MARIO CAMPANA, M.D., SILVIA GAMBA, M.D., GIORGIO GRASSI, M.D., AND ALBERTO BLATTO, B.S.—201

Hypoglycemia due to Serum-complexed Insulin in a Patient with Diabetes Mellitus—JOHN P. SHEEHAN, M.D., AND DAVID A. SISAM, D.O.—202

Hypoglycemia due to Serum-complexed Insulin: A Reply—STEWART G. ALBERT, M.D., AND DENNIS A. POPP, M.D.—202

Insulin Wastage—ESTHER DAMASER, Ph.D.—203

Insulin Wastage: A Reply—CHRISTIAN BERNE, M.D., INGEGERD AGENÄS, Pharm.D., GUNNAR ERIKSSON, Pharm.D., AND LARS WIBELL, M.D.—203

Which Patients Might Benefit from Combining a Sulfonylurea with Insulin?—MATTHEW C. RIDDLE, M.D., AND JEAN S. HART, B.S.—204

Empirical Determination of Diabetes Clinical Type—L. JOSEPH MELTON III, M.D., AND PASQUALE J. PALUMBO, M.D.—205

REVIEWERS FOR DIABETES CARE—XXXI

MAY-JUNE 1985/VOLUME 8/NUMBER 3

ORIGINAL ARTICLES

Self-Monitoring of Capillary Blood Glucose: Changing the Performance of Individuals with Diabetes—ROGER S. MAZZE, Ph.D., ROSEMARIE PAS-MANTIER, M.D., JO ANN MURPHY, AND HARRY SHAMMOON, M.D.—207

Frequency and Accuracy of Self-Monitoring of Blood Glucose in Children: Relationship to Glycemic Control—RENA R. WING, Ph.D., DANUTA M. LAMPARSKI, Ph.D., SARAH ZASLOW, B.A., JEAN BETSCHART, M.N., LINDA SIMINERIO, M.S., AND DOROTHY BECKER, M.B., B.Ch.—214

Medication Compliance in Non-insulin-dependent Diabetes: A Randomized Comparison of Chlorpropamide and Insulin—ANDREW K. DIEHL, M.D., M.Sc., NANCY J. SUGAREK, M.S.N., AND RICHARD L. BAUER, M.D., M.Sc.—219

A Population-based Study of Diabetes Mortality—JAMES W. OCHI, M.D., L. JOSEPH MELTON III, M.D., PASQUALE J. PALUMBO, M.D., AND CHU-PIN CHU, M.S.—224

- Prevalence and Mortality of Acute Myocardial Infarction in Patients with Diabetes**—LENE RYTTER, M.D., SVEND TROELSEN, M.D., AND HENNING BECK-NIELSEN, M.D.—230
- The Course of Peripheral Vascular Disease in Non-insulin-dependent Diabetes**—KENNETH KREINES, M.D., EUGENE JOHNSON, Ph.D., MARGARET ALBRINK, M.D., GENELL L. KNATTERUD, M.D., MARVIN E. LEVIN, M.D., ALEXANDER LEWITAN, M.D., WILLIAM NEWBERRY, M.D., AND FREDERICK A. ROSE, M.D.—235
- Bacteremia in Diabetic Patients: Comparison of Incidence and Mortality with Nondiabetic Patients**—CHARLES S. BRYAN, M.D., KENNETH L. REYNOLDS, D.V.M., AND WAYNE T. METZGER, M.D.—244
- Hepatitis B Virus Markers in Diabetes Mellitus**—KHALIL G. KHURI, M.D., MUNIR H. SHAMMA'A, M.D., AND NICOLAS ABOURIZK, M.D.—250
- Alterations in Plasma Lipids in the Presence of Mild Glucose Intolerance in the Offspring of Two Type II Diabetic Parents**—OM P. GANDA, M.D., J. STUART SOELDNER, M.D., AND RAY E. GLEASON, Ph.D.—254
- Methods for the Control of Diabetes After Acute Myocardial Infarction**—D. J. HUSBAND, B.Sc., M.R.C.P., K. G. M. M. ALBERTI, D.Phil., F.R.C.P., AND D. G. JULIAN, M.D., F.R.C.P.—261
- Incidence and Management of Severe Hypoglycemia in 434 Adults with Insulin-dependent Diabetes Mellitus**—INGRID MÜHLHAUSER, M.D., MICHAEL BERGER, M.D., GABRIELE SONNENBERG, M.D., JUTTA KOCH, M.D., VIKTOR JÖRGENSEN, M.D., GUNTRAM SCHERNTHANER, M.D., AND VERA SCHOLZ, Diplom Pädagogin—268
- Flattening Postprandial Blood Glucose Responses with Guar Gum: Acute Effects**—MICHAEL E. McIVOR, M.D., CHARLES C. CUMMINGS, M.D., THERESA A. LEO, R.D., AND ALBERT I. MENDELOFF, M.D.—274
- The Effects of Sucrose, Fructose, and High-Fructose Corn Syrup Meals on Plasma Glucose and Insulin in Non-insulin-dependent Diabetic Subjects**—SUAT AKGÜN, M.D., F.A.C.P., AND NORMAN H. ERTTEL, M.D., F.A.C.P.—279
- BRIEF COMMUNICATIONS**
- A Randomized, Controlled Comparison of Instruction by a Diabetes Educator Versus Self-Instruction in Self-Monitoring of Blood Glucose**—W. KENNETH WARD, M.D., LINDA B. HAAS, R.N., AND JAMES C. BEARD, M.D.—284
- Absorption of Subcutaneously Infused Insulin: Influence of the Basal Rate Pulse Interval**—PER HILDEBRANDT, M.D., KJELD BIRCH, M.D., BENTE M. JENSEN, M.D., CLAUS KÜHL, M.D., AND JENS BRANGE, Ph.D.—287
- REVIEW**
- Glucose-induced Alterations in Nerve Metabolism: Current Perspective on the Pathogenesis of Diabetic Neuropathy and Future Directions for Research and Therapy**—DOUGLAS A. GREENE, M.D., SARAH LATTIMER, B.S., JAN ULBRECHT, M.D., AND PATRICIA CARROLL, M.D.—290
- EDITORIAL**
- Regimen Adherence: A Problematic Construct in Diabetes Research**—RUSSELL E. GLASGOW, Ph.D., WILLETIA WILSON, Ph.D., AND KEVIN D. McCAUL, Ph.D.—300
- LETTERS AND COMMENTS**
- Undernutrition and Diabetes**—ROMESH KHARDORI, M.D.—302
- Isolated ACTH Deficiency Contributing to Frequent Hypoglycemia in Type I Diabetes**—RICHARD SANDLER, M.D., AND GLENN R. PROUDFOOT, M.D.—302
- Diabetes Control and Adolescents**—ARLAN L. ROSENBLUM, M.D.—304
- Diabetes Control and Adolescents: A Reply**—N. P. MANN, M.R.C.P., AND D. I. JOHNSTON, F.R.C.P.—304
- Modeling Psychosocial Effects on Glucose Control**—MARK PEYROT, Ph.D.—305
- Glipizide: Preprandial Multi-Dose Combination Therapy Capable of Maintaining Normal Blood Glucose Throughout the Day**—RICHARD K. BERNSTEIN, M.D.—306
- Use of Artificial Endocrine Pancreas in Postoperative Management of Patients with β -Cell Hyperfunction**—RALPH G. WIELAND, M.D., ROBIN BRADLEY, R.N., MARIAN BARNETT, M.D., AND NANCY VICKERS, R.N.—307
- Report from the International Study Group on Implantable Insulin Delivery Devices**—GENELL KNATTERUD, Ph.D., AND MARIAN FISHER, Ph.D.—308
- Patients' Accuracy in Estimation Overestimated**—CLARE BRADLEY, Ph.D., AND JENNIFER L. MOSES, B.Sc.—308
- Accurately Estimating the Accuracy of Estimation**—RENA R. WING, Ph.D.—309
- More on Infection and SMBG**—WILLIAM W. QUICK, M.D.—309
- More on Reimbursement Issues**—MARY ANN KELLER, R.N., M.S.—309
- On Diabetes and Reimbursement: A Connecticut Experience**—NICOLAS ABOURIZK, M.D., GEORGE REARDON, M.D., AND J. DAVID SCHNATZ, M.D.—310

JULY-AUGUST 1985/VOLUME 8/NUMBER 4

ORIGINAL ARTICLES

- Retinopathy in Young-onset Diabetic Patients**—RONALD KLEIN, M.D., M.P.H., BARBARA E. K. KLEIN, M.D., M.P.H., SCOT E. MOSS, M.A., MATTHEW D. DAVIS, M.D., AND DAVID L. DEMETS, Ph.D.—311
- Incidence of Diabetic Retinopathy and Blindness: A Population-based Study in Rochester, Minnesota**—MARK S. DWYER, M.D., L. JOSEPH MELTON III, M.D., DAVID J. BALLARD, M.D., PASQUALE J. PALUMBO, M.D., JAMES C. TRAUTMANN, M.D., AND CHU-PIN CHU, M.S.—316
- The Prevalence of Retinopathy Is Similar in Diabetes Mellitus Secondary to Chronic Pancreatitis With or Without Pancreatectomy and in Idiopathic Diabetes Mellitus**—CHARLES COUET, M.D., PIERRE GENTON, M.D., JEAN PAUL POINTEL, M.D., JACQUES LOUIS, M.D., PATRICE GROSS, M.D., ETIENNE SAUDAX, M.D., GERARD DEBRY, M.D., AND PIERRE DROUIN, M.D.—323
- Quantification of Early Subclinical Limited Joint Mobility in Diabetes Mellitus**—G. SLAMA, M.D., M. LETANOUX, M.D., N. THIBULT, M.A., C. GOLDGEWICHT, M.D., E. ESCHWEGE, M.D., M.Sc., AND G. TCHOUBROUTSKY, M.D.—329
- Neonatal Mortality in Infants of Diabetic Mothers**—KAY F. MCFARLAND, M.D., AND EZZAT HEMAYA, M.B., B.Ch.—333
- Accommodating Planned Exercise in Type I Diabetic Patients on Intensive Treatment**—A. SCHIFFRIN, M.D., AND SAGAR PARIKH, M.D.—337
- Prospective Evaluation of HDL Cholesterol Changes After Diet and Physical Conditioning Programs for Patients with Type II Diabetes Mellitus**—ROBERT M. KAPLAN, Ph.D., DAWN K. WILSON, M.A., SHERRY L. HARTWELL, M.S., KATHERINE L. MERINO, B.A., AND JANET P. WALLACE, Ph.D.—343

Pancreatic Polypeptide: A Marker for Lean Non-insulin-dependent Diabetes Mellitus?—F. JOHN SERVICE, M.D., MARK B. KOCH, B.A., JOAN M. JAY, B.S., ROBERT A. RIZZA, M.D., AND VAY L. W. GO, M.D.—349

Self-Monitoring of Blood Glucose: How Accurate Are Children with Diabetes at Reading Chemstrip bG?—CHERIL CLARSON, B.M., F.R.C.P., DENIS DANEMAN, M.B., F.R.C.P.(C.), MARCIA FRANK, R.N., JUDY LINK, R.N., B.Sc.N., KUSIEL PERLMAN, M.D., F.R.C.P.(C.), AND ROBERT M. EHRLICH, M.D., F.R.C.P.(C.)—354

Outpatient Management of Diabetes Mellitus with Patient Education to Increase Dietary Carbohydrate and Fiber—JUNE STEVENS, M.S., R.D., MARY B. BURGESS, M.S., R.D., DONALD L. KAISER, Dr.P.H., AND C. MICHAEL SHEPPA, M.D.—359

Complications of Insulin Pump Therapy: The Effect of Insulin Preparation—ROBERT S. MECKLENBURG, M.D., AND TERIN S. GUINN, R.N.—367

High Prevalence of Maturity-onset Diabetes of the Young (MODY) Among Indians—VISWANATHAN MOHAN, M.D., AMBADI RAMACHANDRAN, M.D., CHAMUKUTTAN SNEHALATHA, M.Sc., D.Phil., REMA MOHAN, M.B.B.S., D.O., GOPALAN BHARANI, M.B.B.S., AND MOOPIL VISWANATHAN, M.D.—371

The Effect of Blood Glucose Concentration on Labile A_k in Diabetic Patients—R. KAWAHARA, M.D., T. AMEMIYA, M.D., T. KOMORI, M.D., AND Y. HIRATA, M.D.—375

CASE REPORTS

Glucose Tolerance in Granuloma Annulare—GERALD S. KIDD, M.D., GENE E. GRAFF, D.O., BERNARD F. DAVIES, M.D., MICHAEL T. McDERMOTT, M.D., JOHN L. AELING, M.D., AND FRED D. HOFELDT, M.D.—380

Diabetic Nephropathy and Proliferative Retinopathy with Normal Glucose Tolerance—J. Y. C. CHAN, M.D., Ph.D., E. COLE, M.D., F.R.C.P.(C.), AND A. K. HANNA, M.B.B.Ch., F.R.C.P.(C.)—385

REVIEW

Closing the Gap: The Problem of Diabetes Mellitus in the United States—THE CARTER CENTER OF EMORY UNIVERSITY—391

EDITORIALS

Commentary on the National Standards for Diabetes Patient Education Programs—BRUCE R. ZIMMERMAN, M.D.—407

Goodbye to an Old Friend—F. JOHN SERVICE, M.D.—408

POLICY STATEMENT

Responsible Use of Animals in Research—AMERICAN DIABETES ASSOCIATION—410

LETTERS AND COMMENTS

Effect of Stress on Blood Glucose in IDDM—WILLIAM R. CARTER, Ph.D., LINDA A. GONDER-FREDERICK, Ph.D., DANIEL J. COX, Ph.D., WILLIAM L. CLARKE, M.D., AND DOROTHY SCOTT, B.S.—411

Rectal Glucose Administration Cannot Be Used to Treat Hypoglycemia—STIG ATTVAL, M.D., IBE LAGER, M.D., AND ULF SMITH, M.D.—412

Ketoacidosis: Alcoholic, not Diabetic—DAVID E. AFTERGOOD, M.D.—413

Ketoacidosis: A Reply—M. L. HALPERIN, M.D., F.R.C.P.(C.)—413

"Locked In" Syndrome Following Prolonged Hypoglycemia—D. P. MIKHAILIDIS, M.B., M.Sc., R. A. HUTTON, Ph.D., AND P. DANDONA, D.Phil., M.R.C.P.—414

SEPTEMBER-OCTOBER 1985/VOLUME 8/NUMBER 5

ORIGINAL ARTICLES

Aspartame Use by Persons with Diabetes—JEANINE KULESSA NEHRLING, R.D., PETER KOBE, B.S., MICHAEL P. McLANE, B.S., RONALD E. OLSON, Ph.D., SAVITRI KAMATH, Ph.D., AND DAVID L. HORWITZ, M.D., Ph.D.—415

Prediction of the Relative Blood Glucose Response of Mixed Meals Using the White Bread Glycemic Index—THOMAS M. S. WOLEVER, B.M., B.Ch., M.Sc., FRANK Q. NUTTALL, M.D., RANDOLPH LEE, M.D., GERALD S. WONG, M.D., ROBERT G. JOSSE, M.D., ADELE CSIMA, B.A., M.A., AND DAVID J. A. JENKINS, D.M.—418

Reduced Postprandial Hyperglycemia After Subcutaneous Injection of a Somatostatin-Analogue (SMS 201-995) in Insulin-dependent Diabetes Mellitus—GIATGEN A. SPINAS, M.D., ANDREAS BOCK, M.D., AND ULRICH KELLER, M.D.—429

Gastric Inhibitory Polypeptide (GIP) Responses After Oral Glucose Ingestion in Hyperthyroidism—KWAME OSEI, M.D., JAMES M. FALKO, M.D., THOMAS M. O'DORISIO, M.D., AND DAVID R. ADAM, B.Sc.—436

Adjuvant Therapy with Tolazamide and Insulin Improves Metabolic Control in Type I Diabetes Mellitus—UDAYA M. KABADI, M.D., F.R.C.P.(C.)—440

Continuous Subcutaneous Insulin Infusion in Adults: Glycemic Advantage Is Predicted by Venous Plasma C-Peptide Concentrations—N. W. RODGER, M.D., F.R.C.P.(C.), J. DUPRE, B.M., F.R.C.P.(C.), C. L. B. CANNY, M.D., F.R.C.S.(C.), AND W. F. BROWN, M.D., F.R.C.P.(C.)—447

Compliance to Self-Monitoring of Blood Glucose: A Marked-Item Technique Compared with Self-Report—RENA R. WING, Ph.D., LEONARD H. EPSTEIN, Ph.D., MARY PATRICIA NOWALK, M.S.Hyg., NANCY SCOTT, B.A., AND RANDI KOESKE, Ph.D.—456

Effects of Exercise Training on Insulin Sensitivity in Adolescents with Type I Diabetes—KYLE W. LANDT, M.D., BARBARA N. CAMPAIGNE, Ph.D., FREDERICK W. JAMES, M.D., AND MARK A. SPERLING, M.D.—461

Effect of Exercise on Urinary N-Acetyl-Beta-D-Glucosaminidase Activity and Albumin Excretion in Children with Type I Diabetes Mellitus—BEN H. BROUHARD, M.D., K. ALLEN, L.P.T., D. SAPIRE, M.D., AND L. B. TRAVIS, M.D.—466

Effect of Normoglycemia Before Conception on Early Pregnancy Hormone Profiles—V. DANIEL CASTRACANE, Ph.D., LOIS JOVANOVIC, M.D., AND JAMES L. MILLS, M.D., M.S.—473

Progressive Autoimmune Beta Cell Insufficiency: Occurrence in the Absence of High-risk HLA Alleles DR3, DR4—GEORGE S. EISENBARTH, M.D., Ph.D., S. SRIKANTA, M.D., ELLEN FLEISCHNICK, M.D., OM P. GANDA, M.D., RICHARD A. JACKSON, M.D., STUART J. BRINK, M.D., J. STUART SOELDNER, M.D., EDMOND J. YUNIS, M.D., AND CHESTER ALPER, M.D.—477

Professional Education in a Long-Term Care Facility: Program Development in Diabetes—JUDITH WYLIE-ROSETT, Ed.D., R.D., MARY VILLENEUVE, M.Ed., R.N., AND ROGER MAZZE, Ph.D.—481

Self-Reported Data: Reliability and Role in Determining Program Effectiveness—MARYANN M. ZAREMBA, B.A., BETH WILLHOITE, M.S., AND KNUT RA, M.D., M.P.H.—486

The Value of Cardiovascular Autonomic Function Tests: 10 Years Experience in Diabetes—DAVID J. EWING, M.D., F.R.C.P., CHRISTOPHER N. MARTYN, M.B., M.R.C.P., ROBERT J. YOUNG, M.B., M.R.C.P., AND BASIL F. CLARKE, M.B., F.R.C.P.—491

The Treatment of Urinary Tract Infections in Women with Diabetes Mellitus—MARVIN FORLAND, M.D., AND VIRGINIA L. THOMAS, Ph.D.—499
Periarthritis: Another Duration-Related Complication of Diabetes Mellitus—MOHAMMED ABDUL SATTAR, M.B., B.S., M.R.C.P., AND WIJDAN ALI LUQMAN, M.D., F.A.C.P.—507

EDITORIAL

Combined Sulfonylurea and Insulin Therapy in Insulin-dependent Diabetes: Research or Clinical Practice?—ROBERT A. RIZZA, M.D.—511

POLICY STATEMENTS

Self-Monitoring of Blood Glucose—AMERICAN DIABETES ASSOCIATION—515

Continuous Subcutaneous Insulin Infusion—AMERICAN DIABETES ASSOCIATION—516

LETTERS AND COMMENTS

Test Strip Comparison: Visidex and Chemstrip—JANET H. SILVERSTEIN, M.D., AND ARLAN L. ROSENBLUM, M.D.—518

Test Strip Comparison: A Reply—MICHAEL E. CANFIELD, M.D., CHARLES HOFF, Ph.D., AND STEPHEN E. KEMP, M.D., Ph.D.—519

Critique of a Recent Chemstrip bG/Visidex Comparison Study—NINA PELED, Ph.D., AND JOANNA MCINTYRE, B.S., C.(A.S.C.P.)—520

Diabetic Complications—R. B. PAISEY, M.D., M.R.C.P.—521

Diabetic Complications: A Reply—MASAKI ISHIHARA, M.D., YAICHIRO YUKIMURA, M.D., Ph.D., TAKASHI YAMADA, M.D., Ph.D., KEN OHTO, M.D., Ph.D., AND KUNIO YOSHIZAWA, M.D., Ph.D.—521

Intensive Treatment of Diabetes During Pregnancy—G. D. ROVERSI, M.D.—522

Intensive Treatment of Diabetes During Pregnancy: A Reply—E. G. LUFKIN, M.D., AND R. L. NELSON, M.D.—523

Decreased Serum C-Peptide/Insulin Molar Ratios After Oral Glucose in Hyperthyroidism—NANCY SANZ, M.D., COLLIN QUOCK, M.D., FRANCIS S. GREENSPAN, M.D., AND JOHN H. KARAM, M.D.—524

Decreased Serum C-Peptide/Insulin Molar Ratios: A Reply—KWAME OSEI M.D., JAMES M. FALKO, M.D., THOMAS M. O'DORISIO, M.D., AND DAVID R. ADAM, B.S.—524

Two Tips for Care of Diabetic Feet—RICHARD K. BERNSTEIN, M.D.—525

An Enzyme Immunoassay to Detect Microalbuminuria in Diabetic Patients—R. COPPO, M.D., F. CERUTTI, M.D., A. AMORE, M.D., C. GUIDONI, M.D., M. SAITTA, M.D., G. PICCOLI, M.D., AND P. NICOLA, M.D.—525

Amitriptyline Treatment of Painful Diabetic Neuropathy: An Inadvertent Single-Patient Clinical Trial—BYRON J. HOOGWERF, M.D.—526

SEPTEMBER-OCTOBER 1985/VOLUME 8/SUPPLEMENT 1

INTERNATIONAL WORKSHOP ON THE EPIDEMIOLOGY OF INSULIN-DEPENDENT DIABETES MELLITUS/RICHARD F. HAMMAN, M.D., Dr.P.H., AND NINA BERLIN, EDITORS

International Workshop on the Epidemiology of Insulin-dependent Diabetes Mellitus—RICHARD F. HAMMAN, M.D., Dr.P.H., CHAIRMAN, AND NINA BERLIN, CO-CHAIRMAN—1

Recommendations from the International Workshop on the Epidemiology of Insulin-dependent Diabetes Mellitus, Philadelphia, Pennsylvania, October 1983—5

The Epidemiology of Insulin-dependent Diabetes Mellitus (IDDM) in Finland and in Northern Europe—HANS K. ÅKERBLUM, M.D., AND ANTTI REUNANEN, M.D.—10

A Comparison of the Epidemiology of Youth-onset Insulin-dependent Diabetes Mellitus Between Japan and the United States (Allegheny County, Pennsylvania)—NAOKO TAJIMA, M.D., RONALD E. LAPORTE, Ph.D., ITSURO HIBI, M.D., TERUO KITAGAWA, M.D., HIDEHIRO FUJITA, M.D., AND ALLAN L. DRASH, M.D.—17

The Incidence of Insulin-dependent Diabetes Mellitus In Israeli Children and Adolescents 0–20 Years of Age: A Retrospective Study, 1975–1980—ZVI LARON, M.D., MOSHE KARP, M.D., AND MICHAELA MODAN, M.Sc.—24

Changing Concepts of the Epidemiology of Insulin-dependent Diabetes—PETER H. BENNETT, M.B., F.R.C.P.—29

Thyroid, Gastric, and Adrenal Autoimmunities Associated with Insulin-dependent Diabetes Mellitus—NOEL K. MACLAREN, M.D., AND WILLIAM J. RILEY, M.D.—34

Perspectives on the Role of Viruses in Insulin-dependent Diabetes—JI-WON YOON, Ph.D., AND USHA R. RAY, Ph.D.—39

The Development of Insulin-dependent Diabetes Mellitus Among Relatives—TREVOR J. ORCHARD, M.B.B.Ch., M.Med.Sci., AND ARLAN L. ROSENBLUM, M.D.—45

Surveillance of Acute Complications of New Therapies—STEVEN M. TEUTSCH, M.D., M.P.H., AND WILLIAM H. HERMAN, M.D.—51

The Pittsburgh Insulin-dependent Diabetes Mellitus (IDDM) Morbidity and Mortality Study: Case-Control Analyses of Risk Factors for Mortality—JANICE S. DORMAN, Ph.D., NAOKO TAJIMA, M.D., RONALD E. LAPORTE, Ph.D., DOROTHY J. BECKER, M.B.B.Ch., F.C.P.(Paed.), KAREN J. CRUICKSHANKS, B.A., DIANE K. WAGENER, Ph.D., TREVOR J. ORCHARD, M.B.B.Ch., M.Med.Sci., AND ALLAN L. DRASH, M.D.—54

Precipitants of Hospitalization in Insulin-dependent Diabetes Mellitus (IDDM): A Statewide Perspective—HOWARD A. FISHBEIN, Dr.P.H.—61

Insulin-dependent Diabetes Mellitus and Ischemic Heart Disease—ELIZABETH BARRETT-CONNOR, M.D., AND TREVOR J. ORCHARD, M.B.B.Ch., M.Med.Sci.—65

A Population-based Study of Diabetic Retinopathy in Insulin-using Patients Diagnosed Before 30 Years of Age—RONALD KLEIN, M.D., M.P.H., BARBARA E. K. KLEIN, M.D., M.P.H., AND SCOT E. MOSS, M.A.—71

Epidemiologic and Public Health Aspects of Insulin-treated Diabetes in Denmark—ANDERS GREEN, M.D.—77

Epidemiologic Approaches to the Identification of Problems in Diabetes Care—FREDERICK A. CONNELL, M.D.—81

The Community Ecology of Diabetes Patient Classification and Practice Characteristics—RICHARD B. ROTHENBERG, M.D., M.P.H., CAROLYN L. OLSEN, Ph.D., JOEL J. SCHNUR, M.D., TODD M. GERBER, M.S.P.H., JERRILYN COHEN, B.A., GERALD B. CURTIS, B.A., JAMES JESSERER, B.A., JANET ROACH, B.S., AND CHRISTINE WIRTH, B.S.—87

Medical Care Patterns at the Onset of Insulin-dependent Diabetes Mellitus: Association with Severity and Subsequent Complications—RICHARD F. HAMMAN, M.D., Dr.P.H., MAGDALENA COOK, M.S., SHARON KEEFER, B.S., WALTER F. YOUNG, M.S., JACK L. FINCH, M.S., DENNIS LEZOTTE, Ph.D., BETH McLAREN, B.S., MIRIAM ORLEANS, Ph.D., GEORGEANNA KLINGENSMITH, M.D., AND H. PETER CHASE, M.D.—94

Geographic Differences in the Risk of Insulin-dependent Diabetes Mellitus: The Importance of Registries—RONALD E. LAPORTE, Ph.D., NAKO TAJIMA, M.D., HANS K. AKERBLOM, M.D., NINA BERLIN, B.A., JAMES BROSEAU, M.D., MORTEN CHRISTY, M.D., ALLAN L. DRASH, M.D., HOWARD FISHBEIN, Dr.P.H., ANDERS GREEN, M.D., RICHARD HAMMAN, M.D., Dr.P.H., MAUREEN HARRIS, Ph.D., M.P.H., HILARY KING, M.Sc., M.D., ZVI LARON, M.D., AND ANDREW NEIL, M.B., M.R.C.P.—101

Index—108

 NOVEMBER-DECEMBER 1985/VOLUME 8/NUMBER 6

ORIGINAL ARTICLES

Accuracy of Perceiving Blood Glucose in IDDM—DANIEL J. COX, Ph.D., WILLIAM L. CLARKE, M.D., LINDA GONDER-FREDERICK, Ph.D., STEPHEN POHL, M.D., CLAUDIA HOOVER, M.A., ANDREA SNYDER, M.S.N., M.Ed., LINDA ZIMBELMAN, M.S.N., A.N.P., WILLIAM R. CARTER, Ph.D., SHARON BOBBITT, M.A., AND JAMES PENNEBAKER, Ph.D.—529

Evaluation of Computer-based Diet Education in Persons with Diabetes Mellitus and Limited Educational Background—LAWRENCE A. WHEELER, M.D., Ph.D., MADELYN L. WHEELER, M.S., R.D., PATRICIA OURS, B.S., R.D., AND CYNTHIA SWIDER, B.A.—537

Computer-assisted Insulin Dosage Adjustment—ALICIA SCHIFFRIN, M.D., MARKO MIHIC, M.D., BERNARD S. LEIBEL, M.D., AND A. MICHAEL ALBISSER, Ph.D.—545

Blood Glucose Control by Intermittent Loop Closure in the Basal Mode: Computer Simulation Studies with a Diabetic Model—STUART M. FURLER, M.Biomed.E., EDWARD W. KRAEGER, Ph.D., ROBERT H. SMALLWOOD, B.Pharm., AND DONALD J. CHISHOLM, F.R.A.C.P.—553

International Criteria for the Diagnosis of Diabetes and Impaired Glucose Tolerance—MAUREEN I. HARRIS, Ph.D., M.P.H., WILBUR C. HADDEN, M.A., WILLIAM C. KNOWLER, M.D., Dr.P.H., AND PETER H. BENNETT, M.B., F.F.C.M.—562

Initial Psychologic Responses of Parents to the Diagnosis of Insulin-dependent Diabetes Mellitus in Their Children—MARIA KOVACS, Ph.D., RICHARD FINKELSTEIN, Ph.D., TERRY L. FEINBERG, M.S.W., MARY CROUSE-NOVAK, M.S.W., STANA PAULASKAS, Ph.D., AND MYRNA POLLOCK, M.S.W.—568

Correlations Among Autonomic, Sensory, and Motor Neural Function Tests in Untreated Non-insulin-dependent Diabetic Individuals—MICHAEL A. PFEIFER, M.D., CLARICE R. WEINBERG, Ph.D., DANIEL L. COOK, M.D., Ph.D., ANDREW REENAN, M.S., EUGENE HALAR, M.D., JEFFREY B. HALTER, M.D., EDWARD C. LACAVA, M.D., AND DANIEL PORTE, JR., M.D.—576

Effect of Insulin Pump Treatment for One Year on Renal Function and Retinal Morphology in Patients with IDDM—H. BECK-NIELSEN, M.D., B. RICHENSEN, M.D., C. E. MOGENSEN, M.D., T. OLSEN, M.D., N. EHLERS, M.D., C. B. NIELSEN, M.D., AND P. CHARLES, M.D.—585

Time as a Risk Factor in Diabetic Nephropathy—GUDRUN NYBERG, M.D., OWE LARSSON, M.D., PER-OLA ATTMAN, M.D., GÖRAN GRANÉRUS, M.D., AND GUNNELA NORDÉN, M.D.—590

Peripheral Arterial Circulation in Individuals with Impaired Glucose Tolerance—OLGA VACCARO, M.D., PAOLO PAUCIULLO, M.D., PAOLO RUBBA, M.D., GIOVANNI ANNUNZI, M.D., ANGELA A. RIVELLESE, M.D., GABRIELE RICCARDI, M.D., AND MARIO MANCINI, M.D.—594

The Relationship of Maternal Age on Gestational Diabetes—KAY F. MCFARLAND, M.D., AND CHRISTINE A. CASE, M.D.—598

BRIEF COMMUNICATIONS

The Preparation of an Acceptable Placebo for NPH Insulin—ROBERT G. JOHNSON, M.D., Ph.D., JOHN E. GODINE, M.D., Ph.D., KATHERINE HURXTHAL, R.N., M.P.H., AND DAVID M. NATHAN, M.D.—601

Reagent Strip Glucose Monitoring Methods in Chronic Hemodialysis—CANDACE J. WASON, R.N., M.S., JACQUELINE GREEN, M.D., CLARA MILLER, R.N., AND DAVID M. ROXE, M.D.—603

The Vibratory Perception Threshold in Young Diabetic Patients: Associations with Glycemia and Puberty—JAY M. SOSENKO, M.D., ANDREW J. M. BOULTON, M.R.C.P., DENISE B. KUBRUSLY, M.D., JAGDISH K. WEINTRAUB, B.A., AND JAY S. SKYLER, M.D.—605

CASE REPORT

Postsplenectomy Sepsis Caused by Group B Streptococcus (*S. agalactiae*) in an Adult Patient with Diabetes Mellitus—HAMILTON R. FISH, M.D., JOHN K. S. CHIA, M.D., AND K. M. MOHAMED SHAKIR, M.D., F.A.C.P.—608

SPECIAL ARTICLE

Understanding and Enhancing Patient Compliance with Diabetic Regimens—IRWIN M. ROSENSTOCK, Ph.D.—610

LETTERS AND COMMENTS

Self-Measurement of Blood Glucose Concentration: Clinical Significance of Patient-Generated Measurements—STEPHEN L. POHL, M.D., LINDA GONDER-FREDERICK, Ph.D., DANIEL J. COX, Ph.D., AND WILLIAM S. EVANS, M.D.—617

OGTT in Unselected Pregnant Indian Women—P. SRINIVASAN, M.D., VANAJA PONNIAH, M.Sc., AND M. KASTHURI, D.G.O.—619

A Fiber-rich Diet for the Treatment of Diabetic Patients with Chronic Renal Failure—A. RIVELLESE, M.D., M. PARILLO, M.D., A. GIACCO, R.D., F. DE MARCO, M.D., AND G. RICCARDI, M.D.—620

Lack of Systematic Metabolic Alterations After a One-hour Interruption of Continuous Subcutaneous Insulin Infusion in Type I Diabetic Patients—ANDRÉ SCHEEN, M.D., PHILIPPE HENRIVAUX, M.D., BERNARD JANDRAIN, M.D., ALFRED S. LUYCKX, M.D., Ph.D., AND PIERRE J. LEFEBVRE, M.D., Ph.D.—621

Diabetes Mellitus and Intercourse—ROBERT G. MOSES, F.R.A.C.P., AND STEPHEN COLAGIURI, F.R.A.C.P.—623

Effect of Stress Reduction on Daily Glucose Range in Previously Stabilized Insulin-dependent Diabetic Patients—BERNARD LANDIS, Ph.D., LOIS JOVANOVIĆ, M.D., ERICA LANDIS, CHARLES M. PETERSON, M.D., SUSAN GROSHEN, Ph.D., KATHERINE JOHNSON, M.S., AND NEAL E. MILLER, Ph.D.—624

More on Syringe Reuse—LAURA M. BORDERS, M.N., R.N., POLLY BINGHAM, M.N., R.N., AND MATTHEW C. RIDDLE, M.D.—626

A Sero-Epidemiologic Study of Nondiabetic First-Degree Relatives of IDDM Cases—DOROTHY J. BECKER, M.B.B.Ch., F.C.P., RONALD E. LAPORTE, Ph.D., TREVOR J. ORCHARD, M.B.B.Ch., M.Med.Sci., KAREN J. CRUICKSHANKS, B.A., NAKO TAJIMA, M.D., KAREN ECKENRODE, R.N., B.S.N., AND ALLAN L. DRASH, M.D.—627

VOLUME CONTENTS—XXXV

SUBJECT INDEX—XXXLI

AUTHOR INDEX—XLIX

